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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,030	04/02/2004	Jozef J. Van Dun	43225-44575CUSC	2797

24238 7590 04/18/2005

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EXAMINER
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NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/817,030

Applicant(s)

VAN DUN ET AL.

Examiner

Nathan M. Nutter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 55-82 is/are pending in the application.
- 4a) Of the above claim(s) 81 and 82 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 55-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restrictions*

Applicant's election with traverse of Group I, claims 55-80, in the reply filed on 25 March 2005 is acknowledged. The traversal is on the ground(s) that since "claim 81 of Group II depends from Claim 55. If Claim 55 is allowable, Claims 81 is allowable as a matter of law. *The search and examination can proceed on the basis of Claim 40 (sic). As such, there is no additional burden on the part of the Patent Office to keep Claim 81 together with Claims 55-80 (sic).*" And goes on to state that "(a)ccording to MPEP § 803, if the search and examination of patent claims can be made without serious burden, the examiner must examine it on the merits, even though the application includes claims to independent or distinct inventions." Counsel did not address the requirement as it pertains to the Group III invention.

This is not found persuasive because primarily, no product claim has been allowed. Moreover, the language of claim 81 is drawn to two distinct processes, the first is to use the composition of claim 55 to make a pipe. The second is "increasing the service life of a pipe," which is not clearly a method of using the composition of claim 55, and, clearly is not a method of making the composition of claim 55.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 81 and 82 drawn to inventions nonelected with traverse in Paper filed 25 March 2005. A complete reply to the final rejection must

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include cancellation of nonelected claims or other appropriate action (37 CFR 1.144)

See MPEP § 821.01.

### ***Terminal Disclaimer***

The Terminal Disclaimer filed 25 March 2005 is sufficient to overcome the rejection of claims 55-80 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-52 of U.S. Patent No. 6,787,608.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 55-80 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The concept that "the same catalyst system is used to make the LMW component and the HMW component," as now recited, is not supported by the teachings of the Specification, or the claims, as originally filed. Counsel refers to paragraphs [63] to [68] to support the amendment to claim 55, yet

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nothing in any of those paragraphs teaches, discloses or suggests the use of the same catalyst system to make the LMW component and the HMW component, as alleged.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 55-65, 72-75 and 78-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Bailey et al.

The reference to Bailey et al teaches the manufacture of a “polyethylene composition comprising a low-molecular-weight (LMW) ethylene homopolymer component and a high-molecular-weight (HMW) ethylene interpolymer component, wherein the LMW component is characterized as having a molecular weight distribution,

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MWD<sup>L</sup>, of less than about 8" at Table 1 that bridges columns 1, 2, 3 and 4, as recited in instant claims 55, 57-65 and 78. The Table shows a HMW<sup>L</sup> as being "2-4" as recited in claims 55 and 63. The blend is characterized as being bimodal at column 2 (lines 42-47), as recited in claim 56. In Table 1, the LMW component has a density of "about 0.945-0.975," as recited in claim 57, and an I<sub>2</sub> value of "45-300" g/10 min., embracing that recited in claim 58. In Table 1, the HMW component has a density of from "about 0.930-0.955," as recited in instant claim 59, a HLMI (I<sub>21.6</sub>) value of "0.1-1.5," as recited in instant claim 60, and a MWD "generally preferred" as being "4-9, as recited in claims 61 and 64. The ratios of the weight average molecular weights of the HMW and LMW constituents embraces that recited in claim 62 at Table II at column 3. Again, in Table 1, the blend is characterized as having a MWD of "20-35," as recited in claims 65 and 78. The polymers are taught as being produced by a catalyst system as recited in claims 72-75. Note the Examples. Finally, the reference teaches the employment of these resins in manufacturing at column 2 (lines 33-41), as recited in instant claims 79 and 80.

Claims 55, 57-61, 63, 72, 73, 79 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al.

The reference to Martin et al teaches the manufacture of a "polyethylene composition comprising a low-molecular-weight (LMW) ethylene homopolymer component and a high-molecular-weight (HMW) ethylene interpolymer component, wherein the LMW component is characterized as having a molecular weight distribution, MWD<sup>L</sup>, of less than about 8" at the paragraph bridging column 1 to column 2 as recited

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in instant claims 55, 57, and 58. This passage teaches a "heterogeneity index ( $MWD^L$ ) from 2 to 8," as recited in claims 55 and 63, and that the LMW component has a "density greater than 0.96," embracing that recited in claim 57, and an  $I_2$  value of "greater than 30 grams per 10 minutes," embracing that recited in claim 58. Note Table I at columns 3 and 4. Further, in Table II at columns 3, 4, 5 and 6, the HMW component has a density of from "about 0.94-0.975," as recited in instant claim 59, a HLMI ( $I_{21.6}$ ) value of "2-12," embracing that recited in instant claim 60, and a heterogeneity index that may equal 6, as recited in claim 61. The polymers are taught as being produced by a catalyst system as recited in claims 72 and 73. Note the Examples. Finally, the reference teaches the employment of these resins in manufacturing at column 1 (lines 21-31), as recited in instant claims 79 and 80.

Claims 55, 57, 59-64, 72-75 and 78-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Rohde et al.

The reference to Rohde et al teaches the manufacture of a "polyethylene composition comprising a low-molecular-weight (LMW) ethylene homopolymer component and a high-molecular-weight (HMW) ethylene interpolymer component, wherein the LMW component is characterized as having a molecular weight distribution,  $MWD^L$ , of less than about 8." Note column 1 (lines 3-20), that teaches values that are overlapping at a polydispersity of 2.5 to 8, as recited in claim 55. Note column 2 (lines 45-56) for the density of the LMW ethylene homopolymer being 0.95 to 0.97 g/cm<sup>3</sup>, as recited in claim 57. Note column 3 (lines 23-32) which teaches the density of the HMW

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constituent to be "from 0.91 to 0.945 g/cm<sup>3</sup>" and "not greater than 0.950 g/cm<sup>3</sup>", both of which embrace the recitations in claims 59 and 61. At column 3 (lines 23-24) the patent teaches the MFR 190/21.6 of the HMW constituent to be "not greater than 1.5 g/10 min.," embracing that recited in claim 60. Note Tables 1 and 2 at columns 7 and 8 and claim 1 at column 9 that show the weight average molecular weights for both constituents, from which the ratios as recited in the instant claims 62-64 and 78 may be determined. The polymers are taught as being produced by a catalyst system as recited in claims 72-75. Note the Examples. Finally, the reference teaches the employment of these resins in manufacturing at column 1 (lines 41-57), as recited in instant claims 79 and 80.

Claims 55-57, 59-64, 66, 69, 72-74 and 77-80 are rejected under 35 U.S.C. 102(b) as being anticipated by de Lange et al.

The reference to de Lange et al teaches the manufacture of a "polyethylene composition comprising a low-molecular-weight (LMW) ethylene homopolymer component and a high-molecular-weight (HMW) ethylene interpolymer component, wherein the LMW component is characterized as having a molecular weight distribution,  $MWD^L$ , of less than about 8" at column 3 (lines 22-28) for the polydispersity of the LMW component being "from 2.5 to 12" embracing that recited in claims 55 and 63. The blend is taught as being bimodal at column 2 (lines 11-27). Note the paragraph bridging column 2 to column 3 for the LMW ethylene homopolymer to have "a density of from 0.94 to 0.97 g/cm<sup>3</sup>," as recited in claim 57. Note column 5 (lines 20 et seq.) for the



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density of the HMW component at "0.924 g/cm<sup>3</sup>," as recited in claim 59, and the polydispersity of the HMW component to be 6.8, as recited in claim 61, and at column 3 (lines 65-67) "from 1 to 10," as recited in claim 64. That passage also shows the weight average molecular weight, as recited in claim 66. The  $I_{21.6}$  value for the HMW component is taught to be 0.8 g/10 min., as recited in claim 60. The ratios of the weight average molecular weights of the HMW and LMW constituents embraces that recited in claim 62 at column 5, (lines 20-27). Note the Table 1 bridging columns 5 and 6 for the  $I_{21.6}$  value of the blend, as recited in claim 69. The polymers are taught as being produced by a catalyst system, as recited in claims 72-75. Note the Examples and column 6 (lines 9-11). Finally, the reference teaches the employment of these resins in manufacturing at the paragraph bridging column 1 to column 2, as recited in instant claims 79 and 80.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55-75 and 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al, cited and for the reasons set out above.

The recitations in claims 65-71 regarding the manipulation of the compositional limitations of the comonomers would be within the skill of an artisan to employ desirous

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of end-product characteristics. Otherwise, since all other parameters appear to be equal, these recitations appear to be inherent in the composition as disclosed and taught by Bailey et al. as such, the instant claims are deemed to be obvious over the teachings of Bailey et al, absent any showing of unexpected results, as pertaining thereto.

### ***Response to Arguments***

Applicant's arguments filed 25 March 2005 have been fully considered but they are not persuasive.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

Applicants' arguments are drawn to a feature, that being a concept that "the same catalyst system is used to make the LMW component and the HMW component," without substantiating the enablement of such recitation.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan M. Nutter  
Primary Examiner  
Art Unit 1711

nmn

14 April 2005